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## United States Patent [19]

## Anderson

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| [54]                  | INK JET P<br>DRUM   | PRINTER WITH INTERMEDIATE   |
|-----------------------|---|---|
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| [73]                  | Assignee:   | Xerox Corporation, Stamford, Conn.  |
| [21]                  | Appl. No.:  | 617,221   |
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| [51]<br>[52]          |   |   |
| [58]                  | Field of Sea  | arch  |
| [56]                  |   | References Cited  |
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[57] ABSTRACT

An ink jet printer is disclosed having a rotatable intermediate drum having a thermally conductive surface on which the ink droplets are printed from the printhead. The drum surface material is a suitable film forming silicone polymer having a high surface energy and surface roughness to prevent movement of the droplets after impact thereon. The printhead is located relative to the intermediate drum surface so that the ink droplets impact the drum surface with a large contact angle and the ink droplet image is transferred at a second location spaced from the printhead to minimize contaminating particles from the recording medium from reaching the printhead nozzles. The intermediate drum surface is heated to dehydrate the ink droplets prior to transfer from the intermediate drum to the recording medium. The silicone polymer coating enables substantially complete transfer of the dehydrated droplets to the recording medium, so that subsequent removal of the residual ink from the drum by a cleaning system is eliminated.

9 Claims, 3 Drawing Sheets

